

### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### Listing of Claims:

Claim 1 (currently amended): An electron beam irradiation apparatus comprising:  
a rotary driving unit for rotationally driving a disc-shaped object;  
a shield container for rotatably accommodating the disc-shaped object; and  
an electron beam irradiation unit provided in said shield container so that a face to be irradiated on the surface of the disc-shaped object is irradiated with electron beams,  
~~wherein characterized in that~~ when the face to be irradiated is irradiated with the electron beams emitted from said electron beam irradiation unit during rotations of the disc-shaped object, an irradiation beam intensity of the electron beams is set larger on the side of an outer peripheral surface in a radial direction of the disc-shaped object than on the side of an inner peripheral surface.

Claim 2 (original): An electron beam irradiation apparatus according to claim 1, wherein an acceleration voltage of said electron beam irradiation unit is 20 kV through 100 kV.

Claim 3 (currently amended): An electron beam irradiation apparatus according to claim 1 ~~or 2~~, wherein said electron beam irradiation unit includes a plurality of electron beam irradiation tubes arranged in the radial direction.

Claim 4 (original): An electron beam irradiation apparatus according to claim 3, wherein each of current values of said plurality of electron beam irradiation tubes is set so that the current value of said electron beam irradiation tube disposed on the side of the outer peripheral surface is larger than the current value of said electron beam irradiation tube disposed on the side of the inner peripheral surface.

Claim 5 (currently amended): An electron beam irradiation apparatus according to claim 3





said shutter member is constructed to open and close at a higher speed than a peripheral speed on the outer periphery of said disc-shaped object.

Claim 17 (currently amended): An electron beam irradiation method ~~characterized by~~ comprising the steps of:

~~a step of~~ rotationally driving a disc-shaped object; and  
~~a step of~~ irradiating a face to be irradiated of the on-rotating disc-shaped object with the electron beams emitted from an electron beam irradiation unit so that an irradiation beam intensity of the electron beams is set larger on the side of an outer peripheral surface in a radial direction of the disc-shaped object than on the side of an inner peripheral surface.

Claim 18 (original): An electron beam irradiation method according to claim 17, wherein an acceleration voltage of said electron beam irradiation unit is 20 kV through 100 kV.

Claim 19 (currently amended): An electron beam irradiation method according to claim 17 ~~or 18, further comprising the step of setting wherein each of~~ current values of a plurality of electron beam irradiation tubes arranged in the radial direction serving as said electron beam irradiation so is ~~set~~ that the current value of said electron beam irradiation tube disposed on the side of the outer peripheral surface is larger than the current value of said electron beam irradiation tube disposed on the side of the inner peripheral surface.

Claim 20 (currently amended): An electron beam irradiation method according to ~~any one of claims claim 17 through 19, further comprising the step of setting wherein~~ a distance from the irradiated surface to each of said electron beam irradiation windows of said plurality of electron beam irradiation tubes arranged in the radial direction serving as said electron beam irradiation unit ~~is set~~ so that the distance in said electron beam irradiation tube on the side of the outer peripheral surface is shorter than the distance in said electron beam irradiation tube on the side of the inner peripheral surface.



Claim 26 (currently amended): A method of manufacturing a disc-shaped object, involving the use of an electron beam irradiation apparatus ~~according to any one of claims 1 through 16, or an electron beam irradiation method according to any one of claims~~ claim 17 through 24,

further comprising the step of curing at least one of ~~characterized in that~~ a resin layer and/or a surface layer formed on said disc-shaped object ~~is cured~~ by the irradiation of the electron beams.